

How AI Will Transform Federal Health Services

Artificial intelligence has the potential to transform federal health agencies. Emerging generative AI capabilities in particular promise to reshape patient care, accelerate claims processing and improve customer service.

In a recent [GovLoop virtual event](#), experts from industry and government came together to discuss how federal health services can navigate the rapidly evolving AI landscape. Here are some ideas and advice the speakers shared.

Think Low Risk, High Impact

To get started with AI, it makes sense to look for projects that have low risk and the potential for high impact, said Jude Soundar with Microsoft.

One might use generative AI to summarize discharge notes, for example, or to analyze large data sets in medical research. Agencies may also look to implement virtual assistants to tackle routine questions. "Chatbots powered by gen AI can provide instant and accurate responses to patient queries," Soundar said.

Focus on Transparency

For AI to be both effective and trusted, there will need to be ready visibility into the technology and how it's being used, said Kathryn Marchesini with the Office of the National Coordinator (ONC) for Health Information Technology.

To that end, a recent ONC proposal aims "to encourage information transparency, making sure that there's information about the technology available at the fingertips of those that are using it," she said. Agencies should look to such guidance as they leverage AI in health-related mission sets.



THE SPEAKERS

Kathryn Marchesini, Chief Privacy Officer, Office of the National Coordinator for Health Information Technology

Samson Gebraeb, Supervisory Health Scientist Administrator, The National Institutes of Health

Jude Soundar, U.S. Government Affairs Director, Federal Health, Microsoft



Beware of Bias

When dealing with health information, it's especially important to look out for the possibility of introducing bias into AI models, particularly through the use of electronic health record (EHR) systems, said Samson Gebraeb with the National Institutes of Health.

"You don't see a lot of communities that are racial or ethnic minorities, or underserved communities like rural areas, represented in the EHR," Gebraeb said. Agencies will need to ensure that AI built on such data does not carry over that intrinsic bias. To that end, "we need researchers from a diverse community, or from a diverse population, to sit at this table — not only in the design but also in the development and implementation of AI," Gebraeb said.

Attend to Governance

For AI to be trustworthy, government agencies will need to have some rules of the road to guide their efforts, Soundar said. With an eye toward consistent governance, Microsoft has teamed with the Duke University School of Medicine to establish the Coalition for Health AI.

That group, a community of health systems, academia, industry and government working together to develop governance models, has launched a Blueprint for Trustworthy AI in health care, "which is an outstanding foundational document," Soundar said. It addresses bias, and lays out key strategies around testability, usability, safety, transparency and other areas.

Prioritize Privacy and Security

As AI comes to the fore in the health care arena, agencies will need to be especially sensitive to the privacy of patient data and the security of systems supporting AI, Marchesini said.

Agencies will need to look at how AI is developed to ensure the proper controls are in place both to secure data and to comply with specific regulations around the privacy of confidential information. At this stage of the game, it's all about "making sure that privacy and security are at the forefront," she said.

While the Health Insurance Portability and Accountability Act provides some guidelines, there's no clear model yet for applying that in the AI realm, Gebraeb said. The interaction of privacy and security remains a moving target, and all stakeholders in this space will have to give special attention to this area.

Look to Automation

Much medical data is "unstructured" — it's based on doctors' notes and other human language inputs, rather than numbers. To make AI effective in the health arena, Gebraeb said, agencies will need to leverage automation to make sense of these data sources.

For example, "there is going to be some kind of bot, or some kind automation, that could automatically transcribe the speech from the patient in terms of capturing all their family history, medical history, some of the symptoms, all of that," he said.

With automation in place, practitioners will be able to tap into AI-driven insights to provide a higher level of care. Once the data is machine-readable, "AI could be able to take that and, with a push of button, come up with a diagnosis or treatment, or some kind of clinical decision," he said.

We're not there yet, the speakers said, but if agencies can develop strong governance, keep a focus on equity and implement appropriate privacy and security controls, the possibilities are endless.

